

COASTAL CONSERVANCY

Staff Recommendation

April 27, 2006

MILL CREEK HEADWATERS RESTORATION

File No. 06-011

Project Manager: Maxene Spellman

RECOMMENDED ACTION: Authorization to disburse up to \$173,707 of Wildlife Conservation Board funds to the Sonoma Ecology Center (“SEC”) to remove poorly placed road fill, restore riparian habitat, and re-establish natural flow patterns at two stream crossings at the headwaters of Mill Creek.

LOCATION: The proposed project is located in Jack London State Historic Park on the northeast side of Sonoma Mountain in the unincorporated Sonoma County.

PROGRAM CATEGORY: San Francisco Bay Area Conservancy

EXHIBITS

Exhibit 1: Project Location Map

Exhibit 2: Letters of Support

RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31160 through 31164 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes the disbursement of an amount not to exceed one hundred seventy-three thousand seven hundred seven dollars (\$173,707) of funds awarded to the Conservancy by the Wildlife Conservation Board (“WCB”), to the Sonoma Ecology Center (“SEC”) to restore rearing and spawning habitat for steelhead and Chinook salmon by removing poorly placed road fill and restoring native vegetation and natural flow patterns of the headwaters of Mill Creek. Prior to the Conservancy’s disbursement of funds:

1. The Conservancy and WCB shall enter into a memorandum of understanding authorizing the Mill Creek Headwaters Restoration as an approved project under WCB Agreement Number WC-3032BT.
2. SEC shall submit for the review and written approval of the Executive Officer of the Conservancy a detailed work program, schedule, and budget and the names and qualifications of any contractors to be employed in carrying out the project.

3. The Sonoma Ecology Center and the California Department of Parks and Recreation shall enter into an agreement, consistent with Public Resources Code Section 31116(c), to protect the public interest and to provide the Sonoma Ecology Center with adequate access to the project site.”

Staff further recommends that the Conservancy adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed authorization is consistent with the purposes and objectives of the San Francisco Bay Area Conservancy Program, Chapter 4.5 of Division 21 of the Public Resources Code, Sections 31160-31164.
2. The proposed project is consistent with the Project Selection Criteria and Guidelines adopted by the Conservancy on January 24, 2001.
3. The Sonoma Ecology Center is a nonprofit organization existing under Section 501(c)(3) of the U.S. Internal Revenue Code, and whose purposes are consistent with Division 21 of the Public Resources Code.”

PROJECT SUMMARY:

Steelhead and Chinook salmon were once abundant in Sonoma Creek. Today’s much-reduced numbers are subject to excess stream sediment and degraded riparian and aquatic habitats. Although Mill Creek’s headwater system of channels once contributed to the high-value aquatic habitat and important hydrological connection to Sonoma Creek, it is now one of the most sediment-polluted tributaries in the watershed (Lawton and Tribo, 2003). This is due in large part to two failed stream crossings, made worse by landslides caused by recent storms, at Mill Creek’s headwaters in Jack London State Historic Park (“JLSHP”). The proposed project would restore these high value spring/channel headwaters of Mill Creek to prevent 7500 cubic yards of sediment from polluting 18 miles of habitat consisting of the Mill Creek tributary to its confluence with Sonoma Creek and along Sonoma Creek to the San Francisco Estuary. (See Exhibit 1) This project will contribute to the efforts to achieve recovery of the federally and State listed steelhead and Chinook salmon that utilize Sonoma Creek’s rearing and spawning habitat.

Together with California Department of Parks and Recreation (“State Parks”), SEC proposes to reduce the excess sediment by restoring 2 acres of the headwaters of Mill Creek where the two badly failed stream crossings occur. SEC and State Parks will remove excess fill and two collapsed culverts from the two degraded stream crossings, re-establish natural flow patterns between source springs and three headwater channels, and install a single new crossing using State Department of Fish and Game (“DFG”)-approved protocols.

The project also entails moving a trail out of the wetland portion of the headwaters to minimize impacts to the restored riparian area. A 1500-foot long by four-foot wide earthen trail will be relocated upslope to serve as a temporary visitor corridor until a future trail connection is in place. A minor aspect of the project is placing stonework on a road leading to the project site to

enable access for heavy equipment for repair work without damaging sensitive resources. Following all these repairs, SEC will plant riparian plants for erosion control, and manage the dense redwood canopy to provide Mill Creek with optimum shade and woody debris for aquatic habitat enhancement. SEC will also produce the engineering drawings for the proposed channel work and trail relocation, while State Parks will construct these repairs after covering the access road with stonework.

The relationship between State Parks and SEC for the proposed Mill Creek project is part of a long-term strategy for reducing sediment sources in JLSHP to restore rearing and spawning habitat. It is an ideal collaboration: State Parks has extensive experience of on-the-ground restoration work, road decommissioning and maintenance activities, and understands the issues surrounding JLSHP. SEC has a long-term commitment to the restoration of the Sonoma Creek watershed. Its experienced technical staff has led the efforts to complete numerous Sonoma Creek surveys, studies and restoration projects over the past fourteen years. It has built strong relationships with State Parks, DFG, the Regional Water Quality Control Board, the federal Environmental Protection Agency and virtually all the local and regional stakeholders involved in the restoration of the watershed. A future project planned for Mill Creek, for example, will involve collaboration among SEC, State Parks and DFG to remove a fish passage barrier near Mill Creek's confluence with Sonoma Creek. Once completed, removal of the fish passage barrier will further enhance the benefits to the salmonid spawning and rearing habitat of Mill and Sonoma Creeks.

Site Description: The project site is located on Sonoma Mountain 2.35 miles upstream from the confluence of Mill Creek with Sonoma Creek at an elevation of approximately 1,830 feet. Although Mill Creek is characterized by excellent habitat with ample shelter and good canopy for spawning salmonids, the 2-acre project site is mostly seasonal, upstream of fish habitat, dominated by redwood and bay trees, and situated approximately 18 miles from where Sonoma Creek enters the San Francisco Bay. One of the causes for the two failed stream crossings of Mill Creek is the seismically active Rodgers Creek fault that crosses Mill Creek near the base of Sonoma Mountain. This creates steep, erosion prone conditions along Mill Creek. It is not surprising that conditions at the project site result in failed culverts that were poorly designed to produce excess sediment deposition and turbidity on in-stream habitat. The 2006 winter storms further exacerbated the problem.

The proposed repairs will restore the natural hydrology of the headwaters to reduce the turbidity and fine sediment deposition. Construction of the single crossing will withstand, and replanting activities will mitigate, the erosion prone conditions of the area. Removal of the excess sediment, restoration work and trail realignment will significantly increase the riparian wetland habitat value of the headwaters and enhance the aquatic habitat downstream on Mill and Sonoma Creeks. This project is expected to benefit the federally and State listed salmonid species such as steelhead and Chinook salmon that utilize its rearing and spawning habitat, and avian species such as the Northern spotted owl which is known to reside along Sonoma Creek. Sonoma Creek also supports a population of the endangered California freshwater shrimp, which are also likely to benefit from upstream restoration.

Project History: The Center for Ecosystem Management and Restoration's ("CEMAR") *Historical Distribution and Current Status of Steelhead (Oncorhynchus mykiss), Coho Salmon (O. kisutch), and Chinook Salmon (O. tshawytscha) in Streams of the San Francisco Estuary, California* (October 2003) describes the historical abundance of steelhead trout in Sonoma Creek, and provides evidence of declining numbers since the 1950's. It refers to a 1954 DFG report in which 3,580 steelhead trout were found in Sonoma Creek. The CEMAR report indicates that these numbers substantially declined by 1965 to an estimated 500 individuals. Sadly, a 1993 sampling of 12 sites along Sonoma Creek indicated that no more than 17 individuals were reported at one site, but 3 or fewer individuals were counted at most sites.

A series of studies over the past ten years has built a strong case for the importance of the proposed project for solving the problem of degraded salmonid habitat in Mill Creek and Sonoma Creek. A 1996 habitat survey of streams in JLSHP found that a high percentage of fine sediment in park streams was impacting spawning habitat (Fosi et al., 1998). SEC's suspended sediment and turbidity sampling in wet seasons from 2001 through 2003 pointed to Mill Creek as one of the most sediment-polluted tributaries in the Sonoma Creek watershed (Lawton and Tribo, 2003). A current watershed assessment, funded by DFG and conducted by SEC and State Parks, points to multiple stream sediment sources in JLSHP creeks. Primary sources include the two crossings on Mill Creek proposed for treatment in this recommendation.

PROJECT FINANCING:

Coastal Conservancy	\$173,707
National Oceanic & Atmospheric Administration	15,000
Sonoma Ecology Center	4,200
<u>State Department of Parks and Recreation (in kind)</u>	<u>5,000</u>
Total Project Cost	\$197,907

The Conservancy financial contribution is expected to come from its FY 03/04 appropriation from the "California Clean Water, Clean Air, Safe Neighborhood Parks and Coastal Protection Act of 2002" (Proposition 40) for the San Francisco Bay Area Conservancy Program. This funding may be used for restoration of land and water resources in accordance with the provisions of the Conservancy's enabling legislation, Division 21 of the Public Resources Code (Section 5096.650(b)). The proposed project serves to restore water resources of the Mill Creek and Sonoma Creek. The Conservancy will be reimbursed with Wildlife Conservation Board (WCB) Proposition 50 funds as has previously been agreed in an Interagency Agreement.

Under the Interagency Agreement with WCB, the Conservancy may use these funds for wetland habitat restoration projects within the nine-county San Francisco Bay Area that implement the restoration goals of the San Francisco Bay Joint Venture ("SFBJV") and the *San Francisco Baylands Ecosystem Habitat Goals Report* ("Goals Report") and that meet the priorities of the Conservancy as described in Section 31162 of the Public Resources Code. The Goals Report recommends restoration of Sonoma Creek's aquatic and riparian habitats, and the SFBJV targets Sonoma Creek for restoration in accordance with the Watershed Enhancement Plan (adopted

1998). In addition, any proposed project, under the WCB Interagency Agreement, must either be authorized as a priority project listed as such in the Interagency Agreement, or upon agreement between WCB and the Conservancy, that a project warrants such funding. WCB and Conservancy staffs agree that the proposed project is a high priority that warrants funding through the WCB Proposition 50 funding.

The WCB grant funding, in turn, is derived from an appropriation from the Water Security, Clean Drinking Water, Coastal Beach Protection Fund of 2002 (Proposition 50). The Proposition 50 funds were appropriated to WCB under the specific authorization found in Section 79572(c) of the Water Code and may be used for acquisition, protection and restoration of coastal wetlands (among other uses). The proposed project will prevent harmful quantities of sediment from impacting the San Francisco Estuary by significantly reducing the greatest source of sedimentation to Sonoma Creek.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The proposed project would advance the purposes of the San Francisco Bay Area Conservancy Program, Chapter 4.5 of Division 21 of the Public Resources Code (Sections 31160-31164). The project is consistent with §31162(b), which authorizes the Conservancy to undertake projects and award grants in the nine-county Bay Area to public and private agencies and organizations to help achieve the following goals: “protect, restore, and enhance natural habitats and connecting corridors, watersheds, scenic areas, and other open-space resources of regional importance.” The restoration of riparian and aquatic habitats, which are funded by the proposed project, will further these goals by benefiting habitat for steelhead and Chinook salmon in Sonoma Creek between its confluence with Mill Creek and the San Francisco Estuary, resources of great significance to the Bay Area region.

The proposed project is also consistent with §31163(a), which requires the Conservancy to “cooperate with . . . nonprofit land trusts, . . . and other interested parties in identifying and adopting long-term resource . . . goals for the San Francisco Bay area.” This project responds to a collaborative process that defines long-term restoration management strategies for the salmonid rearing and spawning functions of Sonoma Creek.

Finally, this project is appropriate for San Francisco Bay Conservancy Program priority under the criteria of §31163(c), because it is supported by the adopted *Watershed Enhancement Plan for Sonoma Creek*, the Jack London State Historic Park General Plan, and DFG's Steelhead Recovery Plan, serves a regional constituency, can be implemented in a timely way, provides opportunities for resource restoration that could be lost if the project is not quickly implemented, and includes matching funds from other sources of funding.

CONSISTENCY WITH CONSERVANCY'S STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):

San Francisco Bay Program Goal Matrix identifies Sonoma Creek and Sonoma Mountain as areas of significance to, “Protect and Restore Habitats and Other Open Spaces”. The proposed project addresses restoration of the headwaters of Mill Creek located on Sonoma Mountain, and is a part of the Sonoma Creek watershed.

Consistent with **Goal 10, Objectives A and B** of the Conservancy's Strategic Plan, the proposed project is to develop and implement engineering drawings and site-specific restoration plans on 2-acres at the headwaters of Mill Creek. The project will re-engineer the 2 failed stream crossings to eliminate 7500 cubic yards of sedimentation affecting 18 miles of aquatic habitat of Mill Creek and Sonoma Creek.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines adopted January 24, 2001, in the following respects:

Required Criteria

1. **Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section above.
2. **Consistency with purposes of the funding source:** See the "Project Financing" section above.
3. **Support of the public:** Strong support for this project is demonstrated by the support letters from DFG, the Regional Water Quality Control Board, the Sonoma Creek Watershed Conservancy, Senator Carol Migden, and Assembly member Joe Nation.
4. **Location:** By restoring the high value spring/channel head complex located at Mill Creek, this project will improve habitat values of Mill Creek, Sonoma Creek and the San Francisco Bay.
5. **Need:** Without the Conservancy's contribution, neither SEC nor State Parks has sufficient funding needed to implement this important project. This project will contribute to the efforts to achieve recovery of the federally and State listed salmonid species such as steelhead and Chinook salmon that utilize its rearing and spawning habitat, and avian species such as the Northern spotted owl which are known to reside along Sonoma Creek.
6. **Greater-than-local interest:** The recovery of federally listed steelhead and Chinook salmon is of regional and State importance. Sonoma Creek is considered by DFG and the Center for Ecosystem Management and Restoration (CEMAR) as one of the most important watersheds for salmonid recovery in the Bay Area. The *Baylands Ecosystem Goals Report*, the Conservancy, DFG, the San Francisco Bay Joint Venture, and State Parks target restoration of Sonoma Creek as high priority for the health of the San Francisco Estuary. Furthermore, the project is located in a Jack London State Historic Park serving visitors from around the region and throughout the State.

Additional Criteria

7. **Urgency:** Massive landslides occurred at this site during the New Year's Eve storms of 2006. Consequently the land and slope stability of this area is in jeopardy. This places more urgency to accomplish this project before there is further damage resulting in even greater sedimentation into Mill and Sonoma Creeks.

8. **Resolution of more than one issue:** This project will restore the headwaters of Mill Creek to significantly reduce sediment from filling Mill and Sonoma Creeks. By moving a trail out of the wetlands at this site, it will also provide access to the public without compromising this fragile headwaters landscape.
9. **Leverage:** See the “Project Financing” section above.
10. **Readiness:** SEC and State Parks completed environmental documentation for the project and are ready to begin site-specific design work which will be immediately followed by construction for completion by 2008.
11. **Realization of prior Conservancy goals:** This project is directly down slope from the completed Sonoma Ridge Trail funded by the Conservancy. State Parks plans to extend the ridge trail through the Mill Creek headwaters location. As part of the proposed project SEC will move the trail to an alignment out of the wetland area. The trail will be in place to provide safe public access that is sensitive to the site’s natural resources when the ridge trail is extended to this location.
12. **Return to Conservancy:** See the “Project Financing” section above.
13. **Cooperation:** The proposed project is part of a long-term strategy developed through the cooperation of SEC and State Parks to reduce fine sediment sources and restore rearing and spawning functions to the creeks in the Jack London State Historic Park (“JLSHP”). They will implement this project in close coordination with DFG. In addition, SEC is a founding partner of the Sonoma Creek Watershed Conservancy, a collaborative effort of local and regional stakeholders. Its members include the Southern Sonoma County Resource Conservation District and the San Francisco Estuary Institute. SEC will seek input from members of the Sonoma Creek Watershed Conservancy to finalize site-specific plans.

COMPLIANCE WITH CEQA:

The California Department of Parks and Recreation found that the proposed project is categorically exempt from the California Environmental Quality Act (CEQA) under 14 Cal. Code of Regulations Sections 15301, replacement of existing deteriorated structures, and Section 15304, minor alterations to land. State Parks filed a Notice of Exemption on August 20, 2004. Conservancy staff concurs with this finding. The project involves the replacement of deteriorated structures consisting of destroyed culverts and replacing them with a wet water crossing (Section 15301). The project will result in minor alterations in land, water, and vegetation without the removal of mature trees in that it involves installing a new crossing, relocating a small stretch of earthen trail upslope, covering an access road with stonework, and planting riparian plant seeds (Section 15304).

Conservancy staff believes that this project is also categorically exempt from CEQA under 14 Cal. Code of Regulations Section 15333 in that it is a small habitat restoration project not exceeding five acres in size with the goal of restoration of habitat for fish, and a) will not adversely impact endangered, rare or threatened species or their habitat, and b) there are no hazardous materials in or around the project site that may be disturbed or removed. The project involves 1) culvert replacement conducted in accordance with DFG guidelines to reduce sedimentation, 2) restoration of a disturbed area with native plant species, and 3) stabilization of

stream banks with native vegetation to reduce sedimentation and erosion. The proposed project will also relocate a 1500-foot long earthen trail out of the wetland area to higher ground to protect the resource values of the wetland area, and will be relocated on an alignment within the 2-acre project site.

Staff will file a Notice of Exemption upon Conservancy approval of the project.